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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,367	08/20/2003	Jean-Marc Dinten	36057	6399
116	7590	08/09/2005	EXAMINER	
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			SONG, HOON K	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,367	DINTEN ET AL.	
	Examiner	Art Unit	
	Hoon Song	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6,9 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 9-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/29/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "15 values of scattered radiation" as claimed in independent claim 15 is not described in the specification.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2-6 and 11-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. US 6594338B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are obvious by the claims of the patent as follows:

Regarding claim 14, the patent claims an object imaging method by multiple acquisitions, the acquisitions consisting in passing a radiation through the object,

measuring the radiation having passed through the object, the radiation being attenuated through the object from an initial radiation to a total measurement radiation, and subtracting an estimation of a scattered radiation from the total measurement radiation, the measurement radiation and scattered radiation consisting of values associated to respective parts of the object, and wherein:

for at least one of said acquisitions, scattered radiation are measured in passing the initial radiation through an imitation of the object, transposition coefficients relating the scattered radiation through the object to the scattered radiation through the imitation are calculated based on the initial radiation, the total measurement radiation through the object and a total measurement radiation through the imitation,

the scattered radiation through the object is estimated with the transposition coefficients and the scattered radiation through the imitation,

the values of total measurement radiation through the objects, the values of scattered radiation through the imitation and the transposition coefficients being spread in respective tables comprising corresponding elements so that each of the transposition coefficients is associated to a respective part of the object (claims 1-10).

However the patent fails to teach measuring 15 values of scattered radiation.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to measure 15 values of the scatter radiation, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the workable ranges of measuring values involves only routine skill in the art. Thus one having ordinary skill in the art would be motivated to measure 15 values

of scattered radiation since it would provide sufficient information to construct the transposition coefficient.

Regarding claims 2, the present patent claims the imitation (simulacrum) is a block of constant thickness and in a homogeneous material, with an attenuation similar to a base material of the object (claims 1-10).

Regarding claims 3, the present patent claims the taking of the measurement table is a selection in a series of scattered diffusion measurement tables, obtained by successively passing the initial radiation through a respective series of the object, which are blocks of different but constant thickness and in a homogeneous material, having an attenuation similar to a base material of the object (claims 1-10).

Regarding claims 4, the present patent claims the selection comprises an interpolation between two tables of measurements (claims 1-10).

Regarding claims 5, the present patent claims the selection is carried out by comparing a value of the total measurement radiation through the object and a value of the total measurement radiation through the imitations (claims 1-10).

Regarding claims 6, the present patent claims the comparison is carried out for identical rays of the initial radiation through the object and the imitations, only going through the base material of the object (claims 1-10).

Regarding claims 11-13, the present patent fails to claim its application to tomography or bone densitometry or non-destructive controls.

However one having ordinary skill in the art would be motivated to adapt the method to a different type of x-ray measuring application since it would provide multi-purpose system.

Allowable Subject Matter

Claims 9 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 9, the patent fails to claim a step of low pass filtering of the transposition coefficients, arranged in a table superposable on the table of measurements as claimed in claim 9.

Regarding claim 15, the patent fails to claim the coefficients are computed according to the formula:

$$K = [\phi_t \log (\phi_t / \phi_o)]_{\text{object}} / [\phi_t \log (\phi_t / \phi_o)]_{\text{imitation}}.$$

Response to Arguments

Applicant's arguments filed 5/18/2005 have been fully considered but they are not persuasive.

The applicant's argument overcomes the rejection under Yoshioka reference but the amended claims are still rejected under the judicially created doctrine of obviousness-type double patenting because they are not patentably distinct as shown by above rejection. Thus the amended claims 2-6 and 11-14 are remain rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2882

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HKS

8/4/05
HKS


DAVID V. BRUCE
PRIMARY EXAMINER